

WHAT IS CLAIMED IS:

1. A stable suspension having a viscosity of from about 100 to about 20,000 centipoises at a shear rate in the range of from about 0.5 to about 2 seconds⁻¹ and at about 25°C, the viscosity of which undergoes a minimal increase over an extended period of time, comprising (a) from about 10% by weight to about 90% by weight of a non-confined liquid-phase which is a substantially solid particle-free first fragrance composition and/or a substantially solid particle-free first benefit agent composition comprising from about 10% to about 90% by weight of a fragrance and/or benefit agent, from about 0.5% to about 100% of an emulsifier based on the weight of the non-confined fragrance and from about 10% to about 90% water, in the form of a stable oil-in-water emulsion and (b) stably suspended in said non-confined liquid-phase from about 10% to about 90% by weight of a plurality of microcapsules each of which (i) has an outside diameter in the range of from about 0.01 to about 1000 microns; (ii) has a wall thickness in the range of from about 0.001 to about 100 microns; (iii) has a wall composed of a polymer; and (iv) has a liquid phase core comprising a - second fragrance composition and/or second benefit agent composition with the composition of each of the cores of each of said microcapsules being (A) the same and/or different from one another and (B) the same or different from the first fragrance composition and/or first benefit agent composition wherein the weight % of second fragrance composition and/or substantially solid particle-free second benefit agent composition initially contained in each of the microcapsules is from about 5% to 90% by weight of the microcapsules.
2. The stable suspension of claim 1 having a viscosity of from about 1000 centipoises to about 15,000 centipoises at a shear rate in the range of from about 0.5 to about 2 seconds⁻¹ and at about 25°C.

3. The stable suspension of claim 1 having a viscosity of from about 2000 centipoises to about 12,000 centipoises at a shear rate in the range of from about 0.5 to about 2 seconds⁻¹ and at about 25°C.
4. The stable suspension of claim 1 wherein the emulsifier contained in the non-confined liquid phase is at least one emulsifier selected from the group consisting of non-ionic emulsifiers, anionic emulsifiers and zwitterionic emulsifiers, each of which has an HLB value of from about 6 to about 40 with the provisos that:
 - (a) when using a non-ionic emulsifier, the HLB value is in the range of from about 6 to about 20;
 - (b) when using an anionic emulsifier, the HLB value is in the range of from about 10 to about 40; and
 - (c) when using a zwitterionic emulsifier, the HLB value is in the range of from about 6 to about 12.
5. The stable suspension of claim 4 wherein the emulsifier is a non-ionic emulsifier having a HLB value in the range of from about 6 to about 20.
6. The stable suspension of claim 5 wherein the non-ionic emulsifier is polyoxyethylene (20) sorbitan monolaurate.
7. The stable suspension of claim 4 wherein the emulsifier is a zwitterionic emulsifier having a HLB value in the range of from about 6 to about 12.
8. The stable suspension of claim 7 wherein the zwitterionic emulsifier is a phosphatidylcholine.
9. The stable suspension of claim 4 wherein the emulsifier is an anionic emulsifier having a HLB value in the range of from about 10 to about 40.

10. The stable suspension of claim 9 wherein the anionic emulsifier is the sodium salt of n-dodecyl sulfate.
11. The stable suspension of claim 1 wherein said non-confined liquid phase consists essentially of a first fragrance composition, water and an emulsifier having a HLB value of from about 6 to about 40 with the provisos:
- (a) when using a non-ionic emulsifier, the HLB value is in the range of from about 6 to about 20;
 - (b) when using an anionic emulsifier, the HLB value is in the range of from about 10 to about 40; and
 - (c) when using a zwitterionic emulsifier, the HLB value is in the range of from about 6 to about 12;
- and the core of each of said plurality of microcapsules consists essentially of a second fragrance composition and/or a second malodour counteractant composition in admixture with a solvent.
12. The stable suspension of claim 1 wherein the wall of each of said plurality of microcapsules is composed of a substituted or un-substituted acrylic acid polymer or co-polymer cross-linked with a melamine-formaldehyde pre-condensate or a urea-formaldehyde pre-condensate.
13. The stable suspension of claim 11 wherein the solvent is selected from the group consisting of a mono-, di- or tri-C₄-C₂₆ saturated or unsaturated fatty acid glyceride, diethyl phthalate, dibutyl phthalate, diisodecyl adipate, a liquid polydimethyl siloxane, a liquid polydimethylcyclsiloxane, the methyl ester of soya fatty acid, a mixture of soya fatty acid methyl ester and isopropyl myristate with the weight ratio of soya fatty acid:isopropyl myristate being from 2:1 to 20:1 and a mineral oil compatible with each component of said second fragrance composition and/or said second malodour counteractant composition.

14. The stable suspension of claim 11 wherein each of the microcapsules has an average diameter in the range of from about 0.05 microns to about 100 microns and an average wall thickness in the range of from about 0.005 microns to about 10 microns.
15. The stable suspension of claim 11 wherein each of the microcapsules has an average diameter in the range of from about 2.0 microns to about 20 microns and an average wall thickness in the range of from about 0.2 microns to about 2.0 microns.
16. The stable suspension of claim 11 wherein all of the components of the solvent components have a $C \log_{10} P$ greater than about 8.
17. The stable suspension of claim 11 wherein all of the components of the solvent components have a $C \log_{10} P$ greater than about 10.
18. The stable suspension of claim 1 wherein each of the microcapsules contains said second fragrance composition in admixture with a solvent composition and is prepared according to a process comprising the steps of:
 - (i) providing a product base containing non-confined first fragrance composition and emulsifier material;
 - (ii) providing a permeable capsule wherein the permeable capsule contains second fragrance composition and/ or a compatible high $C \log_{10} P$ solvent having a $C \log_{10} P$ value of greater than about 3.3; and
 - (iii) allowing the non-encapsulated second fragrance composition and/ or solvent composition to come to equilibrium thereby transporting a portion of the non-confined first fragrance composition through the permeable shell wall into the interior of the capsule and retaining the fragrance contents in the permeable capsule.
19. The stable suspension of claim 1 wherein each of the microcapsules is a permeable microcapsule containing at least 20 weight percent sacrificial solvent capable of

migrating outside of the capsule over a period of time in the range of from about 50 hours to about 200 hours.

20. The stable suspension of claim 19 wherein the sacrificial solvent contained in the microcapsules is selected from the group consisting of benzyl acetate and n-octanol.
21. The stable suspension of claim 1 wherein each of the microcapsules is produced according to the process comprising the steps of:
 - (i) providing a sacrificial solvent having a $C \log_{10} P$ value of from about 1 to about 3;
 - (ii) encapsulating the sacrificial solvent with a permeable encapsulate material;
 - (iii) providing the encapsulated sacrificial solvent in a liquid environment containing high $C \log_{10} P$ fragrance components with $C \log_{10} P$ of greater than about 3.3; and
 - (iv) allowing the capsules containing the sacrificial solvent to come to equilibrium with the environment containing the high $C \log_{10} P$ fragrance components; whereby at least 20 weight percent of the sacrificial solvent migrates from the capsule into the environment.
22. The stable suspension of claim 1 wherein the non-confined liquid phase also contains a substance selected from the group consisting of at least one deposition aid, at least one additional surfactant, at least one humectant, at least one viscosity control agent and at least one solvent.
23. The stable suspension of claim 1 further comprising a substance selected from the group consisting of from about 0.1% to about 50% of at least one deposition aid, from about 0.1% to about 50% of at least one additional surfactant, from about 0.1% to about 50% of at least one humectant, from about 0.1% to about 20% of at least one viscosity control agent and from about 0.1% to about 50% of at least one solvent.
24. The stable suspension of claim 1 wherein at least a finite portion of said microcapsules is coated with a cationic polymer.

25. The stable suspension of claim 1 wherein the liquid phase core of at least a finite portion of the microcapsules comprises a hydrophobic benefit agent selected from the group consisting of lanolin, aloe and Vitamin E.
26. A process for imparting a benefit or an aroma to a consumable material selected from the group consisting of liquid anionic, cationic, non-ionic or zwitterionic detergents, shampoos, bodywashes, soaps, hair conditioners, skin lotions, anti-perspirants, deodorants and fabric softener and/or conditioner compositions comprising the step of adding to said consumable material an aroma or benefiting amount of the stable suspension defined according to claim 1.
27. A process for preparing the stable suspension of claim 1 comprising the steps of (a) providing an aqueous slurry of a plurality of microcapsules having a polymeric wall and a core comprising a first fragrance composition and/or at least one first benefit agent; (b) admixing an emulsifier having a HLB value of from about 6 to about 40 with the provisos that:
- (a) when using a non-ionic emulsifier the, HLB value is in the range of from about 6 to about 20;
 - (b) when using an anionic emulsifier, the HLB value is in the range of from about 10 to about 40; and
 - (c) when using a zwitterionic emulsifier, the HLB value is in the range of from about 6 to about 12;
- with a second hydrophobic fragrance composition and/or a second hydrophobic benefit agent thereby forming a surfactant-second fragrance and/or second benefit agent mixture; and (c) admixing the aqueous slurry with the surfactant-second fragrance and/or second benefit agent mixture.
28. The process of claim 27 wherein the wall of each of the microcapsules is composed of a substituted or un-substituted acrylamide-acrylic acid co-polymer cross-linked with a melamine-formaldehyde and/or a urea-formaldehyde pre-condensate.

29. The stable suspension of claim 1 wherein the emulsifier is present at a level in the range of from about 1% to about 10% by weight based on the weight of non-confined fragrance.
30. The stable suspension of claim 29 wherein the emulsifier is present at a level of about 2.5% by weight based on the weight of non-confined fragrance.
31. The stable suspension of claim 1 wherein the relationship of the viscosity of the suspension with respect to time of storage of said suspension immediately subsequent to the production of said suspension is according to the set of algorithms selected from the group consisting of:

(i) $\log_e v = \alpha\theta + \beta$ and $\frac{\partial v}{\partial \theta} = \alpha v$;

(ii) $\log_e v = \gamma e^{\delta\theta} + \epsilon$ and $\frac{\partial v}{\partial \theta} = v\delta\gamma e^{\delta\theta}$; and

(iii) $\log_e v = \kappa \log_e \theta$ and $\frac{\partial v}{\partial \theta} = \kappa \left(\frac{v}{\theta} \right)$

wherein: $0.003 \leq \alpha \leq 0.006$;

$$7 \leq \beta \leq 10;$$

$$1 \leq \gamma \leq 3;$$

$$0.002 \leq \delta \leq 0.003;$$

$$6 \leq \epsilon \leq 8;$$

$$0.15 \leq \kappa \leq 0.25; \text{ and}$$

$$7 \leq \lambda \leq 9$$

and wherein v represents the viscosity of said suspension in units of centipoises and θ represents the time of storage of said suspension immediately subsequent to production of said suspension, in terms of days.

32. Apparatus for carrying out the process of claim 28 comprising:

- (i) slurry preparation means for preparing a slurry of microencapsulated fragrance and/or benefit agent in water comprising (a) homogenization means, (b) fragrance and/or benefit agent-hydrophobic solvent first mixing means which is associated with and upstream from said homogenization means and (c) polymer-cross-linking agent reaction means which is associated with and upstream from said homogenization means, and (d) microcapsule wall curing means for forming cured microencapsulated fragrance and/or benefit agent downstream from and associated with said homogenization means;
- (ii) high shear second mixing means downstream from and associated with said curing means in which said stable suspension is formed;
- (iii) means for introduction of said cured microencapsulated fragrance and/or benefit agent from said curing means into said high shear second mixing means;
- (iv) third mixing means apart from said slurry preparation means for mixing emulsifier and non-confined fragrance and/or benefit agent, whereby a second mixture is formed;
- (v) means for second mixture introduction into said high shear second mixing means; and
- (vi) optional storage means for storing said stable suspension formed in said high shear second mixing means, said optional storage means being located downstream from and associated with said high shear second mixing means.

33. The stable suspension of claim 14 wherein each of the oil phase component droplets of the emulsion containing non-confined fragrance and/or benefit agent has a diameter in the range of from about 0.01 microns to about 1.0 microns.

34. The stable suspension of claim 33 wherein each of the oil phase component droplets of the emulsion containing non-confined fragrance and/or benefit agent has a diameter of from about 0.05 microns to about 0.8 microns.

35. The stable suspension of claim 34 wherein each of the oil phase component droplets of the emulsion containing non-confined fragrance and/or benefit agent has a diameter of from about 0.1 microns to about 0.5 microns.
36. The stable suspension of claim 1 wherein the emulsifier contained in the non-confined liquid phase is a polymeric emulsifier used either alone or in combination with the emulsifiers selected from the group consisting of non-ionic emulsifiers, anionic emulsifiers and zwitterionic emulsifiers, each of which has an HLB value of from about 6 to about 40 with the provisos that:
- (a) when using a non-ionic emulsifier, the HLB value is in the range of from about 6 to about 20;
 - (b) when using an anionic emulsifier, the HLB value is in the range of from about 10 to about 40; and
 - (c) when using a zwitterionic emulsifier, the HLB value is in the range of from about 6 to about 12.
37. The stable suspension of claim 29 wherein the emulsifier is a polymeric emulsifier selected from the group consisting of modified starch, gum arabic and cross linked copolymers of acrylic acid and a hydrophobic comonomer.